### LOCAL MISCELLANY.

THE BANK SUSPENSIONS. CONDITION OF THE MUTUAL BENEFIT SAVINGS BANK A DEFICIENCY CONFESSED-BUSINESS BUS-PENDED-REPORT ON THE SECURITY BANK-OTHER INSTITUTIONS.

The suspensions among some of the smaller savings banks of this city do not apparently affect the larger and older institutions. No general "run" has taken place, aithough in one or two banks a number of depositors have closed their accounts. The feeling appears to be one of anxiety rather than of actual alarm. It is said on all sides that the heavier banks are very unlikely to show any weakness, and that a panic is improbable. On Saturday the Mutual Benefit Savings Bank in Tryon row virtually suspended. A meeting of the bank officers was held, at which it was resolved to enforce the rule redring 60 days' notice of withdrawals by depositors, and to decline to receive any more deposits for the present. Charles K. Graham, the president, stated yesterday that the cause of the suspension was the stringency of the times, which made it impossible for the bank to make money. The recent failures had produced an uneasy feeling among depositors, and in anticipa-tion of a run it was thought-best to adopt the 60 days' rule in order to save the securflies. There was a deficiency of assets, as compared with the liabilities. How much the deficiency was, Mr. Graham declined to state. It is said to be-according to the recent examination by Mr. Reed-about \$22,000, be sides some \$12,000 of assets estimated over cost. Mr. Graham said that the bank was sound, nevertheless, and would be able to pay its depositors in full. The suspension was merely a precautionary measure. A tende to a run had been shown last Friday, and numerous depositors had given the 60 days' notice of withdrawal. The mber of depositors was about 2,800, and many of them had large accounts. The trustees in 1873 gave bonds to make up a deficiency of about \$9,000. Mr. Graham did not know whether they would do the same new. He thought that to-day the banks generally would adopt the 60 days notice rule. According to the report of the Mutual Benedit Bank, on Jan. 1, 1875, its assets and liabilities balanced at the round amount of \$436,000 cach. The amount of deposits now is about \$430,000.

The German Up-town Savings Back adopted the 60 days' notice rule on Friday. This bank is said by its officers to be in a perfectly sound condition. The assets are claimed to exceed the liabilities by \$25,000. The bank has 5,000 depositors, of whom persons representing about \$5,000 have given notice of withdrawal.

D. D. T. Marshall, President of the Security Savings Bank, stated last evening that G. W. Reed, the Examiner, had completed his examination of that bank, and made

G. P.		
ASSETS.  Bonds and mortgages Call k ans Town bonds, State New York Backine house and lot Real estate, 10 acres, Mt. Vernon, Iscal estate, house and lot, Astoria Rents due Cash Actrael interest.	48,000 79,502 4,654 2,114 523 23,808	00 55 66 02 00 04 00
Total	\$416,780 400,820	77
Excess	Anna Hallach	77

Mr. Marshell said he was disappointed because this report showed a smaller exesses than the officers thought they could fairly claim. The value of the bank building and one or two other items he thought had been placed too low by Mr. Reed. The fair assets he softened some \$15,000 more than the Exammer's report shower. Mr. Marshall said he did not apticipate that a receiver would be appointed, and he expected to pay every dollar due to depositors. The largest depositors had assured him they would not withdraw, and wished him to pay the smaller ones who demanded their money first. His idea was to put some of the larger depositors in the Board of Directors. A meeting of the trustees will be

The People's Savings Bank was open on Saturday, and a number of depostors called to make inquiries. The trustees will neet this afternoon. It is now estimated that the depositors will receive between 75 and 80 cents on the dollar. The appointment of a receiver is expected. W. A. Butler, receiver of the Manufacturers' and Builders' Bank, has begun his examination, and his statement will soon be made public. The depositors are expected to lose nothing. It is feared that if a forced sale is made of the building of the Central Park Bank the depositors will lose heavily on account of the depressed state of the real estate market.

#### WILLIAM B. ASTOR'S FUNERAL. ABSENCE OF DISPLAY-NEW-YORK'S MOST PROMI-NENT PAMILIES REPRESENTED.

The funeral services of the late Wm. B. Astor were held on Saturday at Trinity Chapel at 10 a.m. At 91g o'clock the relatives and several of the personal friends of Mr. Astor gathered in the parlors of his late residence, at No. 312 Fifth-ave. The body was contained in a leaden case inclosed by a massive resewood casket. The face was not exposed to view. The casket was covered by a pall of purple velvet. On it were placed a large floral crown, surmounted by a cross, and floral wreaths, bound with purple ribbons, the gift of Mr. and Mrs. John Jacob Aster. Another floral crown was the gift of Mr. and Mrs. Wm. Aster. Other floral offerings were contributed by the younger members of the family. The coffin-plate bore the inscription: "William B. Astor. Born Died November 24, 1875. Aged

83 years, 2 mouths, and 5 days."

A little before 10 o'clock the enaket was removed from the house to a hearse in warting, the pall-bearers standing in double line. The heerse was plain, and wasdrawn ing in double line. The nearse was paint, and was drawn by two white norses. There was a noticeable absence of all display, and this is understood to have been in accordance with the wishes of Mr. Astor. The pall-bearers were ex-day. John A. Dix, Samuel B. Ruggles, William J. Hoppia. Chief-Justice Charles P. Daly, Daniel D. Lord, Albert Cadatin, J. Carson Brevoort, and Thomas W. Ludlow. Following the hearse were 15 carriages. In the first carriage were John Jacob Astorand his son William: In the second, Mr. and Mrs. Carey; in the third, Mr. and Mrs. Delane; in the fourth, Mr. and Mrs. Chamler; In the 6tth, Mrs. Aster and Mr. W. W. Aster. The remaining carriages contained the junfor relatives of Mr. Astor, the servants of the family, the employes of Mr. Aster, and the trustees of the Aster Library. The funeral cortege passed down Fifth-ave, to Twenty-lifth-st, to Trinity Chapel. Within the building were congregated many o the old acquaintances of William B. Astor and his son, John Jacob Astor, comprising representatives of some of the oldest, wealthiest, and most distinguished families in the metropolis. Prominent among those present were ex-Gov. E. D. Morgan, Peter Coeper, A. T. Stewart, Moses Taylor, John J. Cisco, Royal Phelps, Gordon W. Burnham, John Jay, Chas. B. Haffman, ex-Judge Bosworth, John Schermer-horu, Peter Gaelet, Leopold Schmidt, Adam Norrie, nearly 90 years of age, and 40 years ago a member of the house of Boorman, Johnson & Co.; Robert and Alexander Stuart, John C. Hamilton, George Schuyler, Adrian Iselin, and Isaac Bell. There was a large crowd of spectators in front of the chapel, and lines of carriages on either side of the street extended from Fifth to Sixth-ave. A force of police under In-spector McDermott and Capi. Steers preserved order. The coffin was received in the vertibule by the clergymen in waiting, the Right Rev. Bishop Potter, the Rev. Dr. Morgan Dix, the Rev. Dr. Hugh Miller Thompson, the Rev. John W. Moore, and the Rev. E. C. Houghton. Thirty choristers chamted the processional hymn, "Jernsalem, the Golden." Led by Bishop Potter, the procession passed up the main aisle, the Rev. Mr. Moore reading the ritual of the Episcopal Church for the burial

the dead. The coffin was placed at the foot of the steps leading to of the dead.

The coffin was placed at the foot of the steps leading to the chancel, and the relatives, friends, and pall-barrers took sards in the order assigned them, the choir meanwhile chanting the peals "Lord, let me know mine end." The Rer. Dr. Thompson then read the lesson, and the choir sang "Nearer, my God, to Thee." While the last verse was being sung the choristers formed to line on each side of the coffin. Eastop Potter placed himself at the head of the coffin, and the attendant coergymen on either side of it. The Rev. Dr. Dix theo read the passage from Job beginning, "Man that is been of woman." Bishop Potter recited "Earth to carth, ashes to ashes, dust to dust." "I heard a voice from Heaven" was then sung by the choir, and the Rev. Mr. Moore read the final prayers. The benedictetion was given by Bishop Potter. The procession of clergyinen and choristers was reformed, and passed down the aide chanting "Brief Life is here our Portion." The funeral cortege took its way slowly my Broadway and the Bioomingdale Road to Trinky Cemetery, where the coffin was placed in the family yauit.

Charles Heald, the employé of Cochrane, McLean & Co., importers, at No. 466 Broadway, who was arrested several days ago by Officer Lake of the Fourteeath Precinct, has been remanded to the Tombs to await further examination. It is now estimated that the value of the property stolen by Heald will amount to \$40,000. Property valued at about \$10,000 has been recovered, the goods being found in the storage warehouse of Morrell & Co., on Thirty-second-st., near Fourthave., and also at No. 500 Broadway. Silk handkerchiefs, towels and napkins of the value of \$75 were found on the habit of conceating goods under his cost each even-ing when he left the store. A large part of the goods stolen in this manner had been sold at auction. His sal-ary was \$500 a year. About eighteen months ago he ob-tained leave of absence to visit Europe. He will be seam arranged to-day.

William Martin, ago 20, residing at Nineteenth-st. and

ave. has been for some time past the confidential of Francis Whiteley, whose office is in the building

of the New-Haven and Hartford Railroad Company, at Grand and Centre-sts. Martin was fully trusted by his employer, but the loss of some thousands of dollars raised a suspicion in Mr. Whiteley's mind, and he went before a magistrate and made a compilate against his clerk. A warrant was placed in the hands of Officers O'Connor and Fields of the District-Attorney's office, who arrested Martin on Saturday afternoon. He thereupon confessed his guilt and detailed the manner in which he stole the money. He was accustomed to intercept letters containing money and appropriate the contents, and also to retain money which he had collected on account of his employer. The amount thus stolen is between \$3,000 and \$4,000. Martin was committed to the Tombs in default of \$2,000 bail.

# THE PRESBYTERIAN HOSPITAL.

CALL IN CIRCULATION FOR AN INDIGNATION MEET-

To the Editor of The Tribune. SIR: Within the last two or three days a call has been circulated among the doctors of our city inviting them to attend a meeting, to be held next Tuesday vening at the theater of the Union League Club. The object of the meeting is to express disapproval of the action of the managers of the Presbyterian Hospital last Spring, in not renominating four members of the medical staff, and to engage the profession as a body not to accept appointments at that hospital until the alleged wrong shall have been remedied. It seems probable that the movement will meet with success, since those who disapprove of it are generally unwilling to come forward and say so (indeed they were not even invited to, as you will see by the wording of the call which I inclose), and there is danger that the public, as well as those physiclans who do not pay much attention to the matter, may be led to believe that the opinions of the meeting represent the deliberate thought of the profession. That this will not be the case may, I think, be fairly inferred from the conspicuous absence from the call of the names of Drs. Flint, Metcalf, Van Buren, Peaslee, Barker, Dalten, Taylor. Mott, and many other fair-minded, unprejudiced, honorable leaders of the profession, to whom th public has a right to look for guidance in this matter. There is more at stake than the agitators would have us believe. They claim that an injury has been done to four young men by a failure to reappoint them, but they say nothing of the injury which they are doing to the six members of the hospital staff who did not feel themselves called upon to resign on this account, as their six col-leagues did. Two of these gentlemen have grown gray in the service, and are respected by every one, not only for their professional but for their personal qualities, and yet it has been intimated to them that New-York will be made too hot to hold them if they retain their positions in the hospital. In other words, because a few men have lost their temper over an imaginary wrong done them or their friends, these other gentlemen are to be hounded out of the city or compelled to with draw ignominiously from a perfectly proper position. Do you not think, Mr. Editor, that the sober-minded

embers of the profession owe it to themselves to come to the rescue of their colleagues, and that in this emergency more than a negative testimony is required from them? It is impossible also to believe that some of the signatures to the call have not been given thoughtlessly. The standing of such men as Drs. Markoe, Agnew, Sands, Draper, Weir, Thomas, and Emmet is so high that we have a right to think they signed the paper without a full consideration of the circumstances, and to hold them bound in honor to see to it that no ex-parte statement issues from this meeting as the deliberate opinion of the AUDI ALTERAM PARTEM. New-York, Nov. 27, 1875.

PROHIBITION AS A REMEDY FOR INTEMPER-ANCE.

At the meeting of the American Temperance Union at Rubinson Hall, on Sixteenth-st., near Broadway, yesterday, the Hon. J. E. Vinten of Wisconsin delivered an address. He said that the remedy for intemperance was total prohibities. The primary cause of intemperance was the love of excitement, which was the root of many other evils. The class that drinks to excess was one that could afford no other excitement. Youth thoughtlessly yielded to the temptation; nerveless old age sought strength from drink. Men whose minds were exhausted by literary labor were often the victims of intoxicating liquors.

A law prohibiting the sale of spirituous liquors was the only cure of drunkenness. Meral suadon was not nough. Neither the drunkard nor the liquor seller could be reached by moral influences. Ministers had for years preached against the crime of liquor selling; furists had presched against the crime of fiquor selling; jurists had add that that business was the most prolific source of crime; medical men had decided that it destroyed namal life and beaith; and yet no liquor seller had ever given head to them. The only reply the liquor dealers made to them, and to the wives and children of drunkards who pleaded that no more liquor should be sold to their husbands and fathers, was a request to be let alone. The law which was powerful to prevent, was slone able to correct. The social character which was given to drinking was another feature and source. By the social glass the moderate drinker was put in great danger of becoming the confirmed drunk-sight method of the confirmed drunk-sight method of the confirmed drunk-sight method to the confirmed drunker confirmed and there were many instances to prove this. Many have fallen after signing the pledge, and for that reason it became necessary to remove temptation by problidition. Reform was sary to remove temptation by problidition. signing the pledge, and for that reason it became necessary to remove temptation by probibition. Reform was easy once or twice, but each relapse from total abstinence to drunkenness made the probability of fluxi retornation less.

# BUSINESS EMBARRASSMENTS.

Gerry, Tilton & Colwell, dealers in iron at No. 6 Rector-st., attribute their failure to losses in business from their connection with two companies in Pittshigh fulled last Sammer. A settlement has been proposed on the basis of 25 per cent for one-name paper, 35 for two-name paper, and 45 for three-name paper. Tals was accepted by four-lifths of the creditors. Two of the dissatisfied creditors commenced suits which obliged them to make a general assignment. If these suits are lecided against the firm the members will go through bundruptey. The entire amount involved in the failures of the Pittsbursh companies and the New-York house is

ver \$1,500,000.
The firms of Mayor Goodkind and Goodkind Brothers, alers in wines at No. 50 Broadway, have assigned to Frederick Lewis. Stephen Camm, metal dealer, No. 135 Avenue D, has assigned to Thomas A. Maguire. It was be firm of Waitzfelder & Co., and not S. L. Waltzfelder & Co., which gave notice to the Cotton Exchange of inabi

reprey of Michael A. Russell.

All but one of the necessary creditors of Ford & Co., publishers, of No. 27 Park place, have signed the proposition for a composition on a basis of 30 per cent, and Isaha T. Williams, the Register in Bankruptey, will submit the matter to the United States District Court this

PICKPOCKETS ON THE STREET CARS. At the session of the Assembly Committee on Crime on Saturday, Archibald Hauz, Superintendent of the Dry Dock Street Railroad; George W. Fields, Suparintendent of the Third Avenue Railroad, and John W. Smith, ex-Superintendent of the Second Avenue Railroad, gave testimony in regard to pickpeckets on the street cars. All of the roads, it was said, were infested more or less by this class of robbers, and application had been made to the police for protection. Mr. Fields thought it would be a good plan to employ as detectives some of the men who worked on the cars, and give them authority to make arrests. Mr. Smith disapproved this plan. He gave an account of his efforts to seeme the headquarters of a band of pickpockets, treated them to liquor, and asked them not to molest passengers on his

road. Police Justice Benjamin C. Wandell said that the lack of legal evidence was the principal reason why disorderly persons and keepers of houses of ill fame were not punished. He thought that from 75 to 95 per cent of the ished. He thought that from 75 to 95 per cent of the business of the police courts was traceable to the influence of intexticating liquor. The traffic in liquor could not be entirely suppressed. He approved the suggestion that a bureau of chemists should examine and lest all liquor sold. When asked what was his opinion on the question of licensing houses of prostitution, the Justice said that he had very decided views, but he preferred not to express them for fear that his church would consider them heterodex. The Committee will need again on Wednesday at 11 a. m.

#### DEATH OF THE BLACKWELL'S ISLAND GATE-KEEPER.

Matthew Creery, the Blackwell's Island gatekeeper, who was mysteriously assaulted on Friday morning last, died on Saturday at 6 p. m. He never regained consciousness from the time when he was found until his death. Various theories for the murder have been advanced, but there is apparently no clew to the perpetrators of the deed. Coroner Eickhoff, who has charge of the case, will make a thorough investigation, and Commissioner Brennan of the Department of Charities and Correction has promised all the aid in his power to discover the murderer. A man called upon Mr. Kellock, the Superintendent of the Out-Door Poor, at 10 a.m., Saturday, saying that he was a sen of the gate-keeper, and requested to pass to the Island, which was granted him, and he remained there until Creery's death. It is said that Creery had a large amount death. It is said that Creery had a large amount of money around him, and the fact that his pockets had been rified when his body was found has given rise to the suspicion that he was murdered for his money. The assailants knowing that he was usually alone in his lodge, selected their time carefully, and some to have so effectually covered up their tracks that there is very little hope that they will be discovered. Two men were arrested on Freibay on suspicion, but there is hardly any evidence against them, although they are still in custedly. Their names are for the present withheld, as they have both

stood well heretofore with the community. Dr. Cush-man yesterday made a post-mortem examination of the body of Geory and found that death was occasioned by a fracture of the skull from a blow of a hatchet. The jury will be impaneled to-day at No. 312 East Thirty-fourth-st., and the inquest will be held at the Coroner's office very soon.

#### WEALTH ALONG WATER-WAYS. A LETTER FROM SALEM H. WALES. To the Editor of The Tribune.

Sin: I do not wish to be understood as saying "that the proposed improvements in the Dock Department would prove so profitable as to extinguish the city debt in 20 years." "A consummation most devoutly" wished for to be sure, but not to be expected from any source within that time. What I did mean was this, that the rentals to be derived from wharves and plers, to be collected under acquisitions, and improvements made to meet the wants of a growing commerce would, if properly handled, provide in 20 years a sinking fund equal to the extinguishment of the debt in-curred. I do believe this, and yet of course no one can now foresee the contingencies that might operate against the soundness of my proposition. - I am looking at the matter in the light in which the facts impress me at this

The wharves and piers should be gradually and systematically improved. Commercial men do not differ in this opinion, so far as I have talked with them upon the subject. No unnecessary strain or burden should be put upon the city in this or in any other direction, but as I said in my communication to the Commissioners of the Sinking Fand, we must discriminate between that which is and that which is not revenue-producing property. We must look for our wealth and tax-paying power as coming to us through the medium of commerce instead of from macadamized roads and pleasure boulevards. If one-half the money expended on these useless contrivances to burden tax-payers had been applied to the improvement of the water front the city would have been more prosperous than it now is. Within the district bounded by the Battery and West Eleventh-st. It is not now possible to provide for the commerce that seeks entry there. Already one steamship company has gone across the river for the reason that no pier could be got, and a large railway corporation is now pressing for more accommodation. In the general rush for boulevards the water front has been forgotten.

Let us now return to our better senses and look after the ways and means of doing a more legitimate business. Our water-ways need improving—better terminal facilities—so as to cheapen the cost of handling merchandise and cargoes. Respectfully,

New Lork, Nov. 27, 1575. I said in my communication to the Commissioners of the

New-York, Nov. 27, 1875.

### THE COMING COUNCIL.

WHAT CONGREGATIONALISTS EXPECT. THE STEPS TO BE TAKEN BEFORE THE COUNCIL CONVENES-PREPARATION OF A LETTER-MISSIVE SCOPE OF THE COUNCIL'S WORK-PROBABLE RESULTS-VIEWS OF PLYMOUTH CHURCH.

In order to ascertain the steps which will

be necessary to organize a mutual council of Congregational churches for the settlement of the question at issue between Plymouth Church and Mrs. Moulton, a TRISUNE reporter on Saturday called upon a wellknown member of the Congregational denomination, who has held official places in the Congregational Association, and has given considerable attention to this case. He said the position of Mrs. Mouiton was the same as that of Theodore Tilton in 1874, when his name was dropped from the Plymouth roll. At that time Mr. Beecher's church refused to unite in calling a council, and an exparte one was convened. But the case differed from Mr. Tilton's in that it had now been decided to call a mutual council to consider it. The first step necessary is that the two parties get together and prepare a letter-missive, as it is termed, in which shall be entered all the subject-matter that is to be considered by the council. This document becomes its organic law so far as determining what business shall come before it, and neither party can exceed what is therein prescribed. The questions involved in the scandal will be involved if the parties agree in the letter-missive that they shall next step will be to fix the date and place of holding the council, which will also be done by mutual agreement.

The composition of the council will next be considered. The organization of the Congregational churches is such that the members of this body may be chosen from any power of the churches, and an individual church stands or falls by itself. Mrs. Moulton, as the objintiff, will have the privilege of naming the first half of the council, after which Plymouth Church will name the other half. It will be composed of both pasters and laymen, and probabiy ministers not delegates will be invited to atten conneil, but they will not have a voice in making the decision. The number of members may be as large or as small as the two parties may desire. In the er parte council called to consider Mr. Tilton's case there were 76 churches represented; but it is not deemed probable that there will be more than 30 or 40 members in the mutual council. This gentleman said he thought Plymonth Church would object to having the scandal con-sidered, but that Mrs. Moulton would insist upon it in a certain way. First, she will desire the question of the right to drop her name decided; and, second, she will probably wish the justness of her reasons for absence from church considered also. In this second part of the question, Mrs. Moniton will be able to introduce the that way the mutual conneil would full to the ground. they were, in a primary sense, only advisory, but were virtually final, as its opinion will govern Congregational burch should refuse to abide by it, it will become de acto an independent church. In the latter event, it will ic in the power of the council to give Mrs. Moulton a letter of dismissal and of recommendation. She, as well as Plymouth Church, could then call an ex-parts counsel, if Thomas G. Shearman told the reporter that the scandal

would be introduced according as the letter-missive should direct. He thought the public was very tired of he subject, and was anxious that it be kept out of publicity hereafter. But, so far as he himself was concerned, and so far as he knew the sentiment of the church, there was a feeling of indifference on the subject. The council is an advisory body, and it may give Mrs. Moulton a letter of dismissal, if the church refuses to accept its advice. In case Mrs. Moulton objects to its decision, Mr. Shear-

nat said he hardly knew what effect it would have. The Rev. Henry M. Scudder, D. D., said he had not been n the Congregational denomination very long, and did not feel like saying much on the question; but he was unable to understand how the scandal could be brought up in any ecclesiastical body. The Rev. C. H. Everest, of the Church of the Paritans in Brooklyn, said be failed to see how the council could touch Mr. Beecher on the scandal question, as it was a question of discipline which rested entirely between Mrs. Moulton and Plymouth Church. He knew of no way in which the guilt or inno-Church. He knew of no way in which the guilt or inno-cence of the pastor could be legally or properly taken into consideration in the council. Roger A. Pryor, counsel to Mrs. Moulton, said on Saturday that he had not seen his client since an answer to her letter had been made, and he was unwilling to say anything in reintion to the subject until he had talked with her. Charles M. Morton, by pastor of the Bathel of Plymouth Church, who was a member of the Committee of Deacons appointed by the church in 1873 to investigate the charges made by William F. West, said he was heartily what the church had taken the action of Friday might.

Church, who was a member of the Committee of Deacous appointed by the church in 1873 to investigate the charges made by William F. West, said he was heartily glad the church had taken the action of Friday might. And, so far as he had conversed with members of the church, the prevailing sentiment appeared to be that they were now pursuing the right coarse. They were all very glad that the case of Mr. West was to be reconsidered, and the sentiment seemed to prevail that the church may have been in haste on some occasions, especially in the West case. They also seemed willing that whatever rights Mrs. Moulton had should be respected, but they regarded it as remarkable that she she should wish to stay when she has forfeited the fellowship of the church, when she has severed her connection with it, and when out of 2,500 members there are not a score who have any sympathy with her whatever. Mr. Morton said he thought the church would accept the decision of the council as final, and that there was a likelihood that no further dispute would arise in the matter. He thought that if the council should decide that the church did wrong in dropping her name, if would restore her to membership. Mr. Beecher has been very much concerned over the trouble which has resulted from this event, and has been very auxious that steps should be taken to put an ead to if.

From another source it was learned that the answer to Mrs. Moulton was drawn up by Mr. Shearman, was then revised by Mr. Beecher, submitted to the Examinus Committee, and finally adopted by the church in open meeting. Mr. Morton stated that Mr. Beecher, in reading the document last Friday evening, manifested a great deal of feeling, and has comfidence in the result of the council's deliberations accused to be very great. Mr. Morton added that it had required a large degree of courage on the part of the church to take this action. Personally, he felt that if the church to take this action. Personally, he felt that if the church to take this action. Personally, he felt th

On a Kenticky Input transit line, recently, a passenger stopped he brakeman as he was going through, and asked: "How fast does this train go! A mile an hour?" 'It goes fast enough to suit us. If you don't like the rate of speed, get out and walk," was the rejoinder. "I would," replied the disgusted passenger, settling back in the corner of his acat, "but my friends won't come for me until the train gets in, and I don't want to be waiting around the depot for two or three hours." The brakeman passed on.

A lady in Connecticut not long since visited a brother who resides in a distant city, taking her little daughter with her. Fatigued with the long ride, the child was impatient to retire in the early evening. "You must wait till your unde prays." "I didn't know that unde prayed; I thought no was a Democrat!"

### THE FASHIONS.

SUGGESTIONS FOR HARD TIMES. PRESENT STYLES CONDUCIVE TO ECONOMY-NEW AND OLD FABRICS COMBINED-LATE IMPORTA-TIONS OF RICH GOODS-HOW THEY ARE MADE UP-REVIVAL OF THE POLONAISE-SENSIBLE STYLES-NEW VAILS-JEWELRY AND GEMS,

Notwithstanding the pressure of the times, vanity asserts her rights, and pride puts on her defensive armor, that Mrs. Grundy may not espy a rent in the fam-ily money bags. Yet economy is the order of the day and it must be established in some way; so let there be consistency in that economy. Ladies are endeavoring to make their own dresses to save the dressmaker's account. What can inexperienced hands do with such a compli-cated affair as a costume with its mysterious unseen array of tapes, strings, and elastics, its drapings, puffs, and plaitings? As well set a farmer to rig a man-of-war. This is not social economy, to speil costly fabrics, and most of all, to make paupers of honest working women. Let each gently-nurtured lady take it into her own graclous heart to make some sacrifices of needless luxuries, and to keep the poor sewing-women in work this Winter, saving thereby both body and soul. A cultured taste, good patterns, and quick imagination can produce at home, with the practical aid of a good sewing woman, many a costume quite equal to those made by Worth or Pinget. Dressmakers are not

inose inade by worth or Pringot. Dressmaners are not aiways artists; all women of taste are.

Fashion is generous this season in permitting great latitude, and so good taste combined with economy covers a skirt of cambric with shirred front breadths of slik, while the back is composed of the sweeping platted or court train. A faded silk may be covered with black lace or foamy ruches and puffings of tulle. From a collection of tulle and tariatan ball dresses, one or two charming costumes can be improvised, particularly when different colors are arranged together; pale gray or white with rose, and blue and sea-foam green; strawcolor and dull red; ivory or cream-color with golden and seal-brown; ivory and rosy purple, flesh-color and faint tints of blue. Young ladies can superintend their ball dresses of these airy fabrics, as exquisite in effect as a piece of Dresden china, yet inexpensive withal. Sifk and tuile of frozen water-green and tearoses, or gray and violet slik with bouquets of clematis and hyacinths, pink and purple. The latest importations of moyen-age brocades, façonné fabrics covered with large arabesques, the soft and graceful damassé, serge-pékin, its medieval figures covering the heavy twiiled ground, the splendid stamped velvets, and other damasks of silk and wool, are magnificent enough for any grande dame of medieval days. Façonné, eithe black or of delicate evening tints, ranges in price from \$4 to \$6 a yard. Damassé also comes in all colors at from \$2 25 to \$6; the superb serge-pékin, with thick twilled, bias surface, covered either with large diamonds, great arabesques, or scrolls and fretwork, and interspersed with medalilous or figured circles, is \$6 a yard; damasse of another sort has brocké figures of a lighter shade of silk, or comes in blocks of cloth colors, for \$4 a yard, and an exquisitely fine drap d'été, closely embossed with slik figures, 24 inches wide, and selling for \$3 and \$4 a yard. Malelassé, of the faintest possible tints of rose, blue, ivory, and amber, for opera wraps, costs from \$3

to \$5 50. All of these fabrics are rich and costly, yet being com bined with plain slik, velvet, or wool, do not after all make so extravagant a toilet. The sleeves and shirt, at present, must be alike, while the overskirt and basque or polonaise are made of the same material, and must invariably be composed of the figured stuffs. Another source of economy is the extreme scantiness of skirts and the possibility of remodeling those of a past date. It would seem absurd to cover a rich velvet skirt with a long elinging overskirt; therefore a deep flounce of velvet is enough to be disclosed, and can be made on a plain and inexpensive skirt. These economies are simply an avoidance of the late extreme excess of fashionable extravagance and waste of costly material, and are being practiced by the richest women. A hands due long, straight breadths of velvet fastened to the band of the upper skirt directly back of the apron, and although it forms the back of the overskirt, yet it completely covers the underskirt. The apron must be deep plain culruss busque has a velvet back, silk front, and salk sleeves. A novelty is a very wide box-plaited ruche ced sepund the edge of the skirt of velvet or silk. Another new zitraction in the way of an elegant tollet is rich embossed satis, with raised velvet figures of various shades. This is worn in basque and train over

velvet for a dinner dress.

In many of these costly costumes trimmings are altogether abandoned as superfluous and extravagant. The Jacquard easimirs, broché fabrics, heavy Sietlieune, and brocades are simply hemmed or faced. The artistic folds of the drapery are thus disclosed, and the only orna-mentation consists of the quaint reticule pocket. The searf overshirt is more artistic than any other. It is gracefully draped below the hips and fasteued at the back by long loose loops and sashes. A new material comes in Roman colors, closely interwoven, of pure spun merits of the late trial. But this gentleman said he hought Plymouth Church would object to this, and in inches wide and \$2.50 a yard, and is made up mostly in simple Gabrielle shape, and the princesse polounise. cashmere, in shades of brown, prune, pavy blue, and black. The basques, everskirts, and flounces of the underaktri are exquisitely embroidered in half colors, with silk, and finished at the edges with silk knife-plaitings. Another style has an ornamentation of velver pyramids, also embroidered, and a seal brown costume is embroid-ered in three shades of brown. In boxes, animate, are combination suits of siik and cashmere. There is a deep side platted flouuse of siik, and three embroidered aces form the overskirt. The back draping is confined by saches and long loops of sitk.

Among other dainty new tidags are Japan morning gowns made of soft Japan silk burd with silk of a cou-

tracting color and wadded with a cotton lighter than down that grows in the south of China. They are style is embroidered by the Japan women in gay silks; dowers in small clusters, single aprays of roses, an inflate variety of birds and brilliant little butterflies form a border half a yard deep. The polonaise has name, the Marguerite. Being a combination of the basque and overskirt, it is simply a fluely fitting cuirass basque joined to an overskirt. It is extremely becoming to all figures, is very long, and the back draping is extremely simple and novel. The basque shape must set with exquisite olainness over the kins and back, and be without trim ming excepting a piping cord or squall fold of silk. The sieeves may be of the same fabric, according to choice, with cuffs of silk, and there is a Byron collar aiready described. The skirt is double width clotb, and requires only three breadths, the back being composed of a single breadth; it is cut straight, all of the fullness being brought into plaits in the middle of the back. Sashes made of a single width of siik are fastened at the side just above the edge of the basque and hold the drapery at the back. French modistes advocate cutting the cuirass basques bias, as best adapted to "fall into line." The imported jackets and walking sacques of last Summer had the backs cut bias. The effect was very evident in the peculiar nicety of the shape. Some of the new French sacques are made with Dolman back and sacque front, the sleeves beginning at the elbew in Dolman style; the fabric is wooi mulclassé, heavily trimmed with soutache laid on in many rows to represent broad bands. A Louis XIV. basket-woven cloth sacque is oddly trimmed with medullions at regular intervals, made of soutache. A very claborately made wrap of black cloth has several rows of wide braid used in the trimming, glittering with gold threads; an open back is simulated by lacings of sliken cords and tassels. Since the polonities and princesse dress have become the rage in Paris, new designs are constantly arriving. The Louis Quinze will probably be very popular. The blouse-front basque is new and intended to add fullness to fragile figures. The basque is plain, but two pieces of straight silk are gathered at the neck and prought down to the waist, where they are again belt made of silk folds, which begins at the side seams and fastens in front. The back of the basque is quite

Long square valls are again fashfonably revived, and are very much more becoming than the present style of mask vail. The new vails are worn in two ways : thrown over the hat with one point before, the other behind, and the two corner points lightly caught together and pinned behind; the other has the top hemmed, and a string run in to the around the crown. Made of black dotted lace, or Chantilly plain net, they must be about three-quarters of a yard long when finished. Just now is preached "dress reform," with all man-

ner of absurdities and innovations. The reform which is most sadiy needed is in the trailing street dress. If the argument is not in itself sufficient for those who ought to argument is not in itself sufficient for those who ought to look upon cleanliness as next to godifices, it can be added that fashion frowns upon it, and the fashiomble walking-skirt escapes the ground utterly and entirely. Corsets are absolutely imperative for comfort as well as appearance. American girls know that wasp waists are out of fashion; so are pale cheeks and flat chests. They wear common-sense extension-sole boots made of heavy moroeco, thoroughly water-proof. They are incased in warm woot undergarments, and regard fine white skirts on the street as vulgar; they are well wrapped

in the shagglest of cloth, warmest of closely-fitting jackets for supping, or, if in lighter fabric of silk and esslamers; pestorated channols vests, lined with flannel, protect them from the cold. Their skiris escape the ground, and their fresh, rosy faces and easy, graceful forms on Broadway and Chestrut-st. are the best of witnesses that no change or reform is needed in the present style of dress. As fashlons come and fashlons go rococo jewelry is largely patronized as comparatively inexpensive and really beautiful. There are in lockets copies of paintings by Greuze upon copper, and Watteau lockets delicately enameled upon poreciain; these are set in Etruscan, and also in plain gold, with odd designs in red and green gold. There are costly trinkets of mythological studies, cut upon the pure green of chrysoprase, the pale pink sard and dark onyx. Repoused work is executed by means of blows from a small hammer, struck in the back of the iron plate, after the original method practiced by Benvenuto Cellini; the figures are afterward polished and finished on the right side. Among some exquisite articles of lewelry, a large onyx is engraved in cameo, with a figure of Venus rising from the sea. An exquisite pendant is a sard cameo of Cupid steering a shell guided by doves, with wings perfectly carved. This has an invisible setting, stunded with pearls and diamonds. Among other cameos is a design of lilies; under them a nytoph lies sound asiesp! Cupid, leaning and haghing over her with crafty face, presses one hand upon her besom while the other draws out an arrow. Another study is a cameo of large size set for a pendant of Yenus and Cupid. The boy-golds fully drawn, with they strong limbs, soft, vigorous arms luding the strong swile the beautiful cameo of Marie Stuart is set in pierced gold; this is in turn surrounded by an Oriental setting of alternate pearls, diamonds, rubles, sapphires, and emeralds.

A very unique bracelet of tapering shape and knife-edge is set with there large giannonds; the setting is simply

Johnston, and Starr & Marcus will please accept thank for information received.

#### THE MISSISSIPPI JETTIES.

SATISFACTORY PROGRESS OF THE WORK-REPORT OF CAPT. EADS'S COMMISSION OF ENGINEERS.

The Commission of Engineers called by Capt. Eads to consider his plans for constructing jetties at the mouth of the Mississippi have recently examined the work in progress at the South Pass. Gen. J. G. Barnard Sir Charles A. Hartley, W. Milnor Roberts, Prof. Henry Mitchell, and H. D. Whitcomb were present. After some discussion it was recommended by the Board that the space of 600 feet between the north end of the west jetty and the shore, across which piles are now driven and mattresses being laid, should not be closed until the east jetty shall have been raised to its full hight out to 20 feet depth of water. Mr. Easts having intimated to the Board that it is of importance to himself and his associates that a depth of 20 feet should be obtained at the mouth of the South Pass as soon as possible, the Board recommended in consideration of Mr. Eads's representation that provisional jetty heads 100 feet in length be established in a depth of 20 feet in the line of both jetties, and that the construction of these works be in conformity with the cross section of a jetty presented by Mr. Eads.

With reference to the permanent jetty-heads, the Board nd the shore, across which piles are now driven and With reference to the permanent jetty-heads, the Board

by Mr. Eads.

With reference to the permanent jetty-heads, the Board says "that their construction, as regards profile fascines, stones, and piles, should be as nearly as possible identical with that of the jetty-heads at the new mouth of the Mass, where the stones employed in exposed positions averages 120 pounds each, and where each cubic yard of mattress-work was charged with half a ton of stone." The Board also says "that a like covering of stone on the mattresses should be etoployed in constructing the jettles at the South Plass, where yet they are liable to be attacked by heavy sens."

Upon personal examination of the locality and observation of the work which has been performed, the South Plass of the Mississippi is found by the Commission to more than fulfill the expectation of its members in regard to its fitness for furnishing an open mouth of ample depth for the largest class of seagoing vessels to the Mississippi River by means of jettles. It is satisfactory to be able to state positively, after four months of actual operations, that the work of pile-driving, extending from the east land's end to 25 lect depth beyond the bar creat, shong a line 24 miles in length, covering nearly the whole length of the eastern jetty, and an examination of the texture of the bar and of the shoals on which the work are to rest, furnish the most satisfactory evidence of a bottom malerial not only adequate to bear all the necessary works, but even to suggest that but for motives of commy (quarries being far distant) the lettles, as at the mouth of the Danube, might be made wholly of stone. The Commission, therefore, unlessificatingly amounices that the

in 1855, the construction of parallel plers was com-in 1855, the construction of parallel plers was com-menced which scenred to the invigation of that river a depth of 17% feet in 1861 and of 20½ feet at the present time, or two feet more than the works were originally de-signed to obtain; and this at the motth of a river-aim discharging less than on-third of the volume of water discharged by the South Pass.

# CROPS IN GEORGIA.

NOVEMBER REPORT OF THE STATE—A COMING CON-VENTION OF FARMERS.

ATLANTA, Ga., Nov. 28.—The following facts e taken from the Consolidated Report of Crops of the

ATLANTA, Ga., Nov. 28.—The following facts are taken from the Consolidated Report of Crops of the Scate Department of Agriculture:

The yield of sugar compared to that of last year is reported at 51. Tols very small average is due to two causes—the loss of seed cane by an early frost hast Fall, and the drouth in the cane-growing portions of the State last Summer. The yield of cane strup compared to that of last year is 67. The average yield of strup per acre is 192 gallons, which sells at the average price of 68 cents per gallon, giving a gross income per acre of 8130-56. The average cost of production of a gallon of this strup is 28 cents, or \$53-76 per acre, which deducted from the gross income, \$130-56, gives a net profit of \$76-80 per acre. Twelve gallons of sirip are made from 100 gallons of cane julce. The sugar made in Georgia sells at the average price of 9 cents per pound, and the molasses at 47 cents per gallon. The yield of sorghum compared to that of last year is 423. This is a very large increase, due to an increased screage planted last Spring, and to the unusually favorable seasons in upper Georgia, where this is becoming an important crop. The average yield of sirup per acre is 73 gallons, which sells at an average of saty-six cents per gallon. This gives a gross income of \$48-18 per acre, or, assuming the cost of production to be the same as that of cane sirup, twenty-eight cents—a net profit of inity-eight cents per gallon, or \$27-74 profit per acre. Fifteen gallons of spring in the fact that the cane julce, and probably due to the difference in the thoroughness of boilting, as shown by the fact that the cane sirup is reported at 734—a sight change from the October report. If this estimate is correct, the crop of the present year will be a little more than 400,000 bales, which, at 11 cents a pound, the average yield of line from seed cotton is 412 pounds; the cost, \$16 per here.

From the October report we learn that the average cost of production, will cost the producers \$20,000,000 more than

cents. The average product per acre—112 pounds—will therefore cost \$10.45.

The average yield of corn per acre is reported at nine bushels, some of the northern counties reporting as high as 30, while some in those sections which suffered from drouth report as low as five bushels per acre. The average cash price of corn throughout the State is \$1.05; of peas, \$1.10; of fodder, per 100 pounds, \$1.19. The average cost of an acre in corn and peas is reported at \$8. According to the United States census of 1870, the average cash value per acre of Georgia forms is \$4.67. Interest on this at 7 per cent increases the cost to \$8.32, leaving a balance of \$8 profit per acre, or just 100 per cent on the cost, a very different result from that shown in the production of cotton.

in the production of coulon.

The yield of sweet potatoes compared to that of last year is only 67, and the average yield this year is only 68 and the average yield this year is only 68 bushels per aero, the droutna in the Spring and Summer having interfered with securing a stand, and that in September, which was general, seriously curtailing the production.

September, which was general, seriously curtailing the production.

No more crop reports will be issued until April of next year, when they will again be resumed during the crop season. In order to organize a more thorough system of crop and wonther reports connected with experimental investigations, a convention of the correspondents and experimenters of the Department will be called, to meet in Atlanta on the 25th day of January next, to continue in session three days. Before this Convention various subjects of vital interest to Georgia agriculturists will be discussed, such as the relation of meteorology, entomology, and other branches of science to agriculture, farm contemp, crop statistics, actual and current, and others which the occasion may suggest.

## APPLIED SCIENCE.

CAOUTCHOUG FROM MILK WEED .-- A report has gone the rounds of the technical press that the man-nfacture of rubber from the milk weed (ascelepias) has been undertaken by a company in Canada with large capital. The milky juice of this family of plants is said to yield four per cent of caoutchone. GEORGINE, A NEW YELLOW DYE .- A new yellow

dye has been named Georgine by Singer of Tournai. It is said to be easily fixed upon all kinds of fibers, needing no mordant with silk and wool, but with cotton requiring previous treatment with alum, or passage through a cold or lukewarm sumae bath. For printing upon wool, cotton, or half-wool, it is thickened with gun water. It may also be employed to bring out the colors of turmeric, fustic, and pierio acid, and affords mixed colors of remarkable purity, with other dyestuffs.

FOR TAKING TRACINGS .- The following process has lately been suggested : One part by volume of castor oil should be dissolved in two or three volumes of oil should be dissolved in two or three volumes of alcohol, and this solution applied to the paper with a brush. The spirit soon evaporates, leaving the paper transparent and ready for use. A tracing in pencil may then readily be made, and when finished, the paper is immersed in alcohol, which dissolves out the oil, restoring the sheet to its original condition. The drawing may afterward be completed in india ink or in colors.

THE GRAMME ELECTRIC MACHINE.—The Gramme magneto-electric machine has for some time been employed for supplying light at the Houses of Parliament in London, and an idea of its power may be gathered from the fact that it is worked by a steam engine at a distance of 480 feet from the point at which the light is produced, the current being conducted thither by copper wires 1<sub>16</sub> of an inch in diameter. The magnets in the machine are arranged upon three massive rectangular blocks, and make 389 revolutions per minute, at an expense of 22<sub>3</sub> horse power, and give a light equal to over 3,000 of the English standard candles.

DYEING COTTON PURE BLUE.-The following is suggested by Böttger for dycing cotton a pure blue. Heat a mixture of 137 grains of Paris blue, 137 grains of tartaric acid, one-half a fluid ounce of smmonia water, and 212 fluid ounces of water, and filter, after cooling. Add to the deep blue filtrate, a solution of caustic soda, until it is decolorized, and after some time assumes a light yellow tint. Impregnate the cotton with this solution, and pass it best after allowing it to dryl through a warm, very dilute solution of sulphuric acid, and it will immediately assume a beautiful blue color, and needs only to be washed in water. The sulphuric acid may be so diluted that it has scarcely a perceptible sour taste. taste.

CHARACTERISTICS OF THE WINDS .- Every one who has attempted, by the computation of thermia or baric wind roses, to arrive at a sharper charactermation of the peculiarities of the separate winds, has fallen upon a difficulty that has almost destroyed his interest in such work; which is the perception that frequently the same wind direction, at the same that frequently the same wind direction, at the same time of the year, occurs with quite opposite characteristics. This discrepancy has received considerable elucidation from Koppen, who, by a careful use of the synoptic weather charts of Europe, has shown that it makes a great difference whether a south-west wind, for instance, blows outward from a center of high pressure, or is drawn inward to a center of low pressure.

CLARIFYING AN ALCOHOLIC SOLUTION OF SHEL-LAC .- Peltz found that after shaking thoroughly one part of petroleum naphtha with 3 parts of an alcoholic solution of shellar, the liquid separated on standing a few minutes, into an upper layer of naphtha containing the wax in the shellac, and a lower one of clear solution of shellac with but little adhering naphtha. With a solution of shellac in 95 adhering naphtha. With a solution of shellac in 95 per cent alcohol the two layers will form, as above, only after the addition of water, so that alcohol below 90 per cent is preferable to one above it, for dissoring the shellac. A solution, clarified as above, however, tensor a more brittle, and less adhesive film on evaporation. This defect may be remedied by the addition of 1 to 3 per cent of Venetian turpentine. Benzine may be substituted for the petroleum-naphtha with like results.

VIBRATION OF FLUID COLUMNS .- The fact that & column of air can be set into longitudinal vibration has suggested to Kundt the possibility of producing similar longitudinal vibrations in columns of water. To this end he sets the tube containing the water in vibration, and finds that the success of his experiment depends principally upon removing from the liquid all traces of gas, whether or no the latter be absorbed in the shape of minute bubbles. The gases absorbed by the liquid are partially driven out by absorbed by the liquid are partially driven out by
the vibrations, and appear as disturbing bubbles.
The so-called tone figures of Kundit can be shown in
the vibrating columns of liquid as well as of these
in air, and can be used to determine the velocity of
sound in the liquid. It is found that the thickness
of the glass tube has an influence on the velocity of
sound, such that the thicker the tube the more rapid
is the propagation of the sound wave.

Drug See Sarranger by Processor and De-

DEEP SEA SOUNDING BY PHOTOGRAPHY .- Dr. Neumayer has presented to the Geographical Society of Berlin a remarkable photographic apparatus for determining the temperature and current-direction at any particular depth in the ocean. It consists of a brass box, hermetically closed, and having atched to it an apparatus resembling a vane or rudder. Within this box a thermometer and a magnetic needle are contained, behind each of which is placed sensitive photographic paper, and in front of each of which is a small nitrogen vacuum tube. The box contains also a small induction coil. When the apparatus is lowered to the required depth, the rudder causes it to take a direction parallel to the current there existing, and hence a definite direction with reference to the needle within. The thermometer soon acquires the temperature of the water outside, and becomes stationary. At this instant an electric current is sent to the box, which by means of the induction coil inside, lights up the little nitrogen tube, the violet light of which, photographically very intense, prints, in about three minutes, the position of the needle and the light of the mercury column upon the prepared paper. The current is then intermitted, the apparatus raised, the photographic tracing fixed, examined, and placed upon record. which is a small nitrogen vacuum tube. The box EFFECTS OF TEMPERATURE ON THE ST. LOUIS

Beinge. - In the construction of the great steel bridge at St. Louis, with its arches of 500 feet, calculations and allowances were made for expansion and contraction by heat and cold, through a range of 140 Fahr., and the calculated difference in the elevation of the center arch of the upper chord above the City Directrix, on the notiest day of Summer to the coldest day of Winter was about 18 inches. Ever since the completion of the bridge

inches. Ever since the completion of the bridge
the hight of the center piers of the top chords of the
arches above the City Directrix has been noted almost
daily at temperatures which have ranged from 92° to
15° Fair., and with the following results:
(The hight is that of the center pier of the top chord
above the City Directrix.)
Date.

Temp. 3 p. m. Hight in test.
May 6, 1874. 69° Fair. 63.548
July 20, 1874. 91° Fahr. 63.688
July 20, 1874. 91° Fahr. 63.757
Jan. 4, 1875. 10° Fahr. 63.241
Jan. 9, 1875. 10° Fahr. 63.965
Between the temperatures of the 20th of July
(the hottest day of last Summer) and the 9th of Jan-

Between the temperatures of the 20th of July (the hottest day of last Summer) and the 9th of January (the coldest day of last Winter) there is a difference of 106° Fahr., and a difference in hight of 0.692 feet, or nearly 86 in inches. The actual effect upon the structure, it will be observed from this statement, is much less than the calculated effect (which, for a variation of 107°, should have given a difference in hight of nearly 14 inches). The difference is explained to be due partly to the protection affroded by the roof of the bridge, and partly to the fact that the ironwork is painted white, thus lessenfact that the ironwork is painted white, thus lessen ing the absorption of heat. ELECTRO-CAPILLARY MOTOR .- A carious little en-

gine, termed an electro-capillary motor, has been described by M. Lippmann. If a globule of mercury be placed in a saucer, together with a little solution of potassium dichromate, acidified with sulphurio acid, and it be touched upon the side with a point of iron, it will at once contract laterally, drawing itself away from the iron. This will break the contact; gravity will spread the globule out again, when it will again touch the iron and contract; and so on. The explanation of this phenomenon is to be found in the fact that the electric current developed on contact of the two metals, changes the capillary constant of the mercury, and hence its form. This is the action which M. Lippmann has ntilized in his motor. In a glass tank filled with diluted sulphuric acid, are two small cylinders containing mercury. A bundle of capillary tubes, open at both ends, is placed in each cylinder, resting on the mercury, each bundle being connected above with one end of a walking beaus, to the prolongation of which is attached a connecting rod, crauk, and ily-wheel. By means of a commutator on the axis of the fly-wheel, the mercury in each cylinder is alternately connected with a small battery; its capillary constant is changed, its ascent in the tubes increased, that side prependerates, and causes a semi-rotation of the fly-wheel. This sends the current to the other cylinder, which, acting similarly, completes the rotation. As many as 100 revolutions per minute have been obtained with this engine. Conversely, on rotating the fly-wheel by hand, a galvanometer in the current indicates the production of an alcetric current. pillary constant of the mercury, and hence its form,